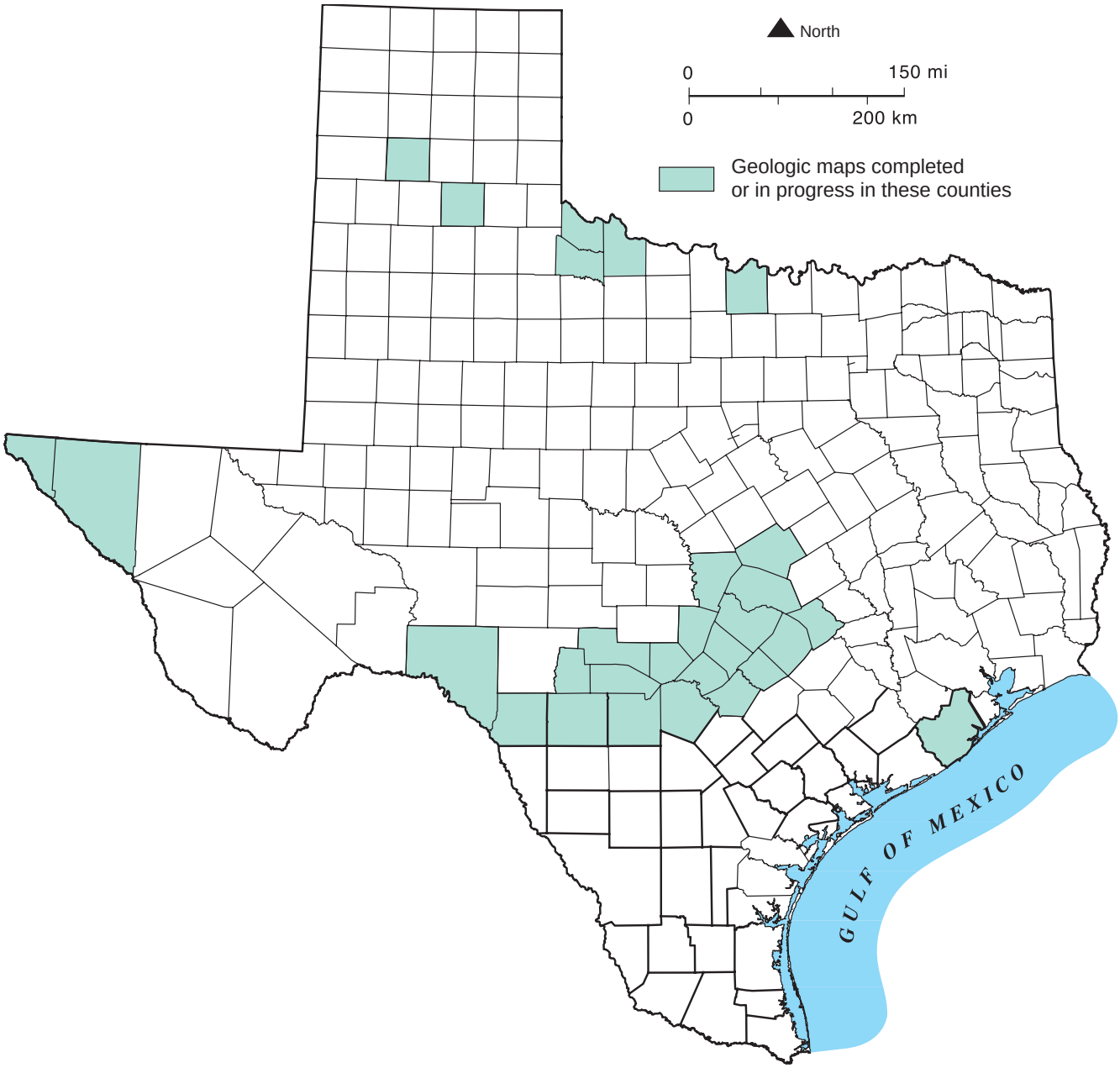
Association of American State Geologists

United States Geological Survey

National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping

TEXAS



Contact information

Texas Bureau of Economic Geology
John A. and Katherine G. Jackson School of Geosciences, The University of Texas at Austin
Scott W. Tinker, Director (512/471-0209)
STATEMAP Contact: Jay Raney (512/471-5357)

http://www.beg.utexas.edu/

U.S.G.S. Geologic Mapping Program Office
Program Coordinator:
Peter T. Lyttle (703/648-6943)
Associate Program Coordinators:
Randy Orndorff (703/648-4316)
Laurel M. Bybell (703/648-5281)

http://ncgmp.usgs.gov/

Summary of STATEMAP Geologic Mapping Program in Texas

Federal Fiscal Year	Project Title	State Dollars	Federal Dollars	Total Project Dollars
1993	El Paso STATEMAP Project	$43,769	$24,821	$68,590
	New Braunfels STATEMAP Project	52,297	31,412	83,709
1994	El Paso STATEMAP Project	52,152	44,164	96,316
	New Braunfels STATEMAP Project	50,287	35,000	85,287
1995	El Paso STATEMAP Project	60,636	51,000	111,636
1996	Digital Geologic Map of New Braunfels	25,910	20,974	46,884
	Geologic mapping of karst aquifer areas, south-central Texas	85,849	79,421	165,270
1997	Geologic mapping of critical aquifers	122, 785	96,169	218,954
1998	Geologic mapping of critical aquifers	220,714	120,874	341,588
1999	Geologic mapping of urban corridors and critical aquifers	119,915	106,049	225,964
2000	Geologic mapping of urban corridors and critical aquifers	96,278	93,194	189,472
2001	Geologic mapping of urban corridors and critical aquifers	147,088	147,088	294,176
2002	Geologic mapping of critical aquifers	100,000	100,000	200,000
2003	Geologic mapping of critical aquifers and areas of special environmental concern	115,043	112,669	227,712
2004	Geologic mapping of critical aquifers	14,805	29,061	43,866
2005*	Geologic mapping to support improved database	214,795	214,795	429,590
	TOTALS	**$1,522,323**	**$1,306,691**	**$2,829,014**

** Project to begin April 2005; therefore, matching figures are estimated.*

The STATEMAP program, part of the National Cooperative Geologic Mapping Program, has benefited Texas by increasing the State's coverage of detailed geologic maps. Geologic mapping for this program has been conducted in areas where high-quality geologic maps provide important data that support responsible decision-making regarding the utilization of land and natural resources. Management of water resources, land-use planning, identification of sources of aggregate and other earth resources, recognition of areas prone to foundation problems, and evaluating changes in sensitive coastal environments are a few examples of the many uses of geologic maps. Map study areas include the Texas coast, central and west Texas areas that are undergoing rapid urban development, areas of major and minor aquifers throughout the State, State parks, and areas of special environmental concern. Mapping priorities are set by the Texas STATEMAP Advisory Panel whose membership is made up of staff from many State agencies.

Geologic maps are made available to the public at a scale of 1 inch to 2,000 feet (1:24,000) and 1 to 1.6 miles (1:100,000). Some maps are available in a digital, Geographic Information System (GIS) format. A program goal is to eventually have all new Texas maps in a GIS format to fulfill the needs of users. Geologic maps are used by professionals in geology, hydrology, engineering, urban planning, archeology, biology, and related fields, as well as policy makers, teachers, students, and laypersons. For example, a recent geologic map of the northern Edwards aquifer of Central Texas has been used by staff at the Texas Water Development Board for groundwater availability modeling, has been used by consulting geologists and landowners for land use planning and property evaluations, and has been used to develop teaching exercises for middle school students.

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